

## Unit 5 Section 5.1 notes

These notes will be handed in at the end of class and will count as a quiz grade.

1. Read p. 218 and answer questions 1-6 from the boxed Activity at the top of p. 219.

① Table 1:  $(14, 68), (11, 64), (13, 65), (16, 72), (15, 64), (14, 67), (15, 66), (12, 62)$

Table 2:  $(11, 63), (12, 64), (13, 65), (14, 70), (15, 72), (16, 72)$

② Yes - 14 and 15.

③ No.

④ Yes - 64

⑤ Yes - 72

⑥ A function does not have a repeated first coordinate.

2. Read p. 219. What is a **relation**? What is a **function**? What is the **domain** of a function? What is the **range** of a function?

relation - pairing between two sets of numbers.

function: relation in which each member of the first set pairs with exactly one member of the second set.

domain: first coordinates in a set of ordered pairs.

range: second coordinates in a set of ordered pairs.

3. Read Example 1 and answer the Try This below the example here.

Function:  $\{(1, 1), (2, 3), (3, 3), (4, 3)\}$

Not a function:  $\{(1, 1), (1, 2), (2, 3), (3, 4)\}$

4. Read p. 220 and Example 2. Answer the Try This after the example here.

a)  $3(3) + 5 \stackrel{?}{=} 15 \rightarrow 14 \stackrel{?}{=} 15$  No.

b)  $3(4) + 3 \stackrel{?}{=} 15 \rightarrow 15 \stackrel{?}{=} 15$  Yes.

c)  $3(0) + 1.5 \stackrel{?}{=} 15 \rightarrow 1.5 \stackrel{?}{=} 15$  No.

d)  $3(5) + 0 \stackrel{?}{=} 15 \rightarrow 15 \stackrel{?}{=} 15$  Yes.

5. Read Example 3 on p. 221. Answer the Try This after the example here.

$$y = 3.50x + 15$$

$$\{(1, 18.50), (2, 22), (3, 25.50), (4, 29), (5, 32.50), (6, 36), (7, 39.50), (8, 43), (9, 46.50), (10, 50)\}$$

$$\text{Domain: } \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$$

$$\text{Range: } \{18.50, 22, 25.50, 29, 32.50, 36, 39.50, 43, 46.50, 50\}$$

6. Read Example 4 on p. 222. Answer the Try This after the example here.

time, $x$	0	1	2	3	4	5
dist., $y$	0	50	100	150	200	250

Dependent variable is distance.

Independent variable is time

Domain and range values are the set of all real numbers greater than or equal to zero.

$y = 50x$  is an equation for the linear function.

7. Begin work on the homework.

p. 223/5-12 all, 15, 16, 18-21, 35, 36